

# Neuroendocrine Tumors

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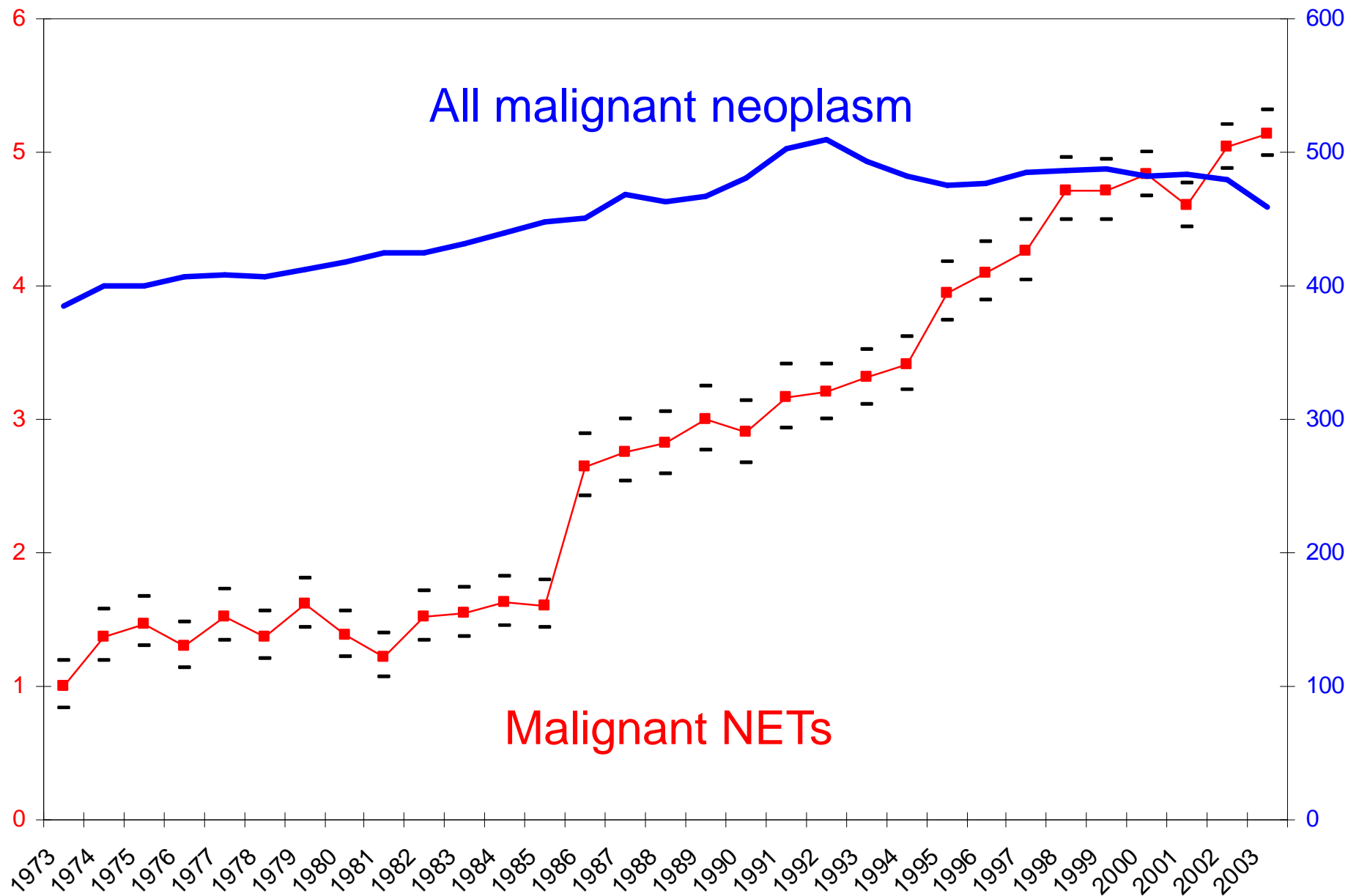
University of Texas M. D. Anderson Cancer Center

# Neuroendocrine Tumors

- Spectrum of neoplasms.
  - WHO classification
    - Well differentiated neuroendocrine tumor
    - Well differentiated neuroendocrine carcinoma
    - Poorly differentiated neuroendocrine carcinoma
- Generally more indolent than adenocarcinoma of the same site.
- Capable of producing hormonal syndrome (ie carcinoid syndrome).

# Epidemiology

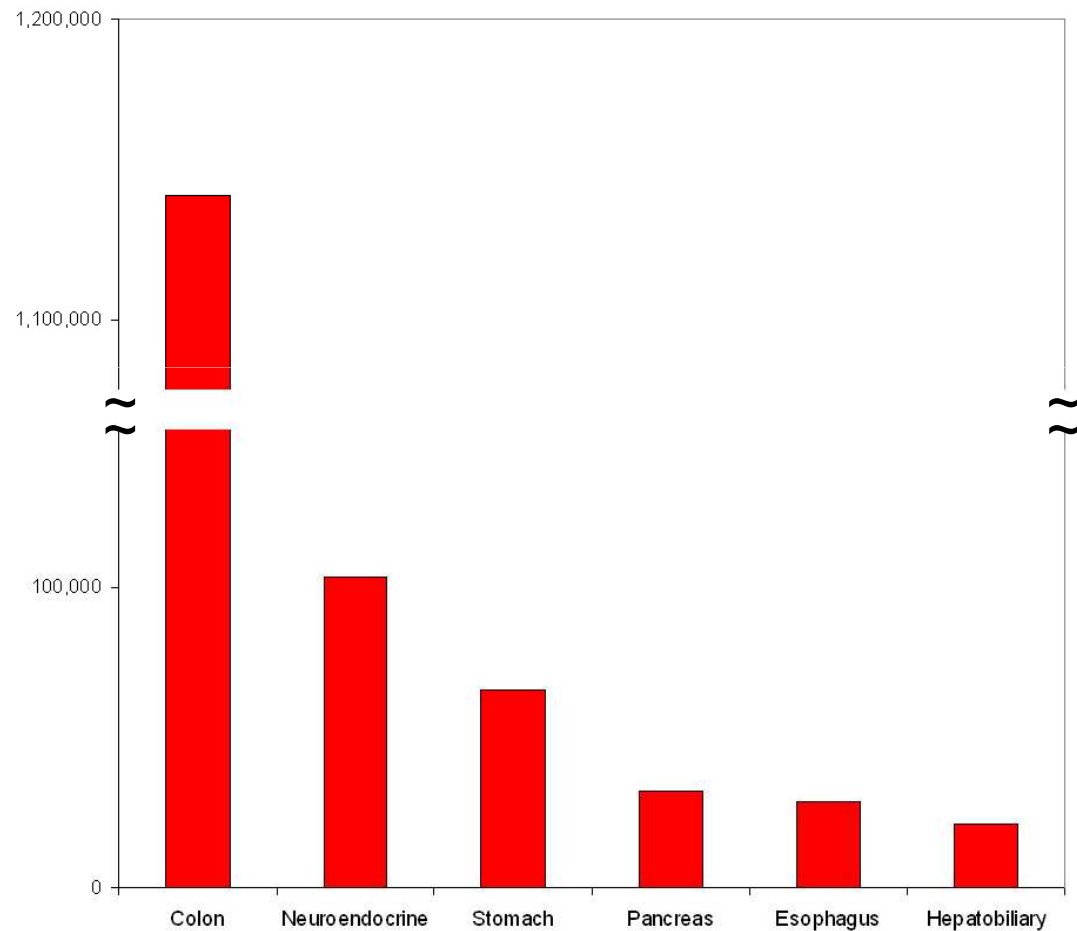
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Yao 4 Yao, unpublished data

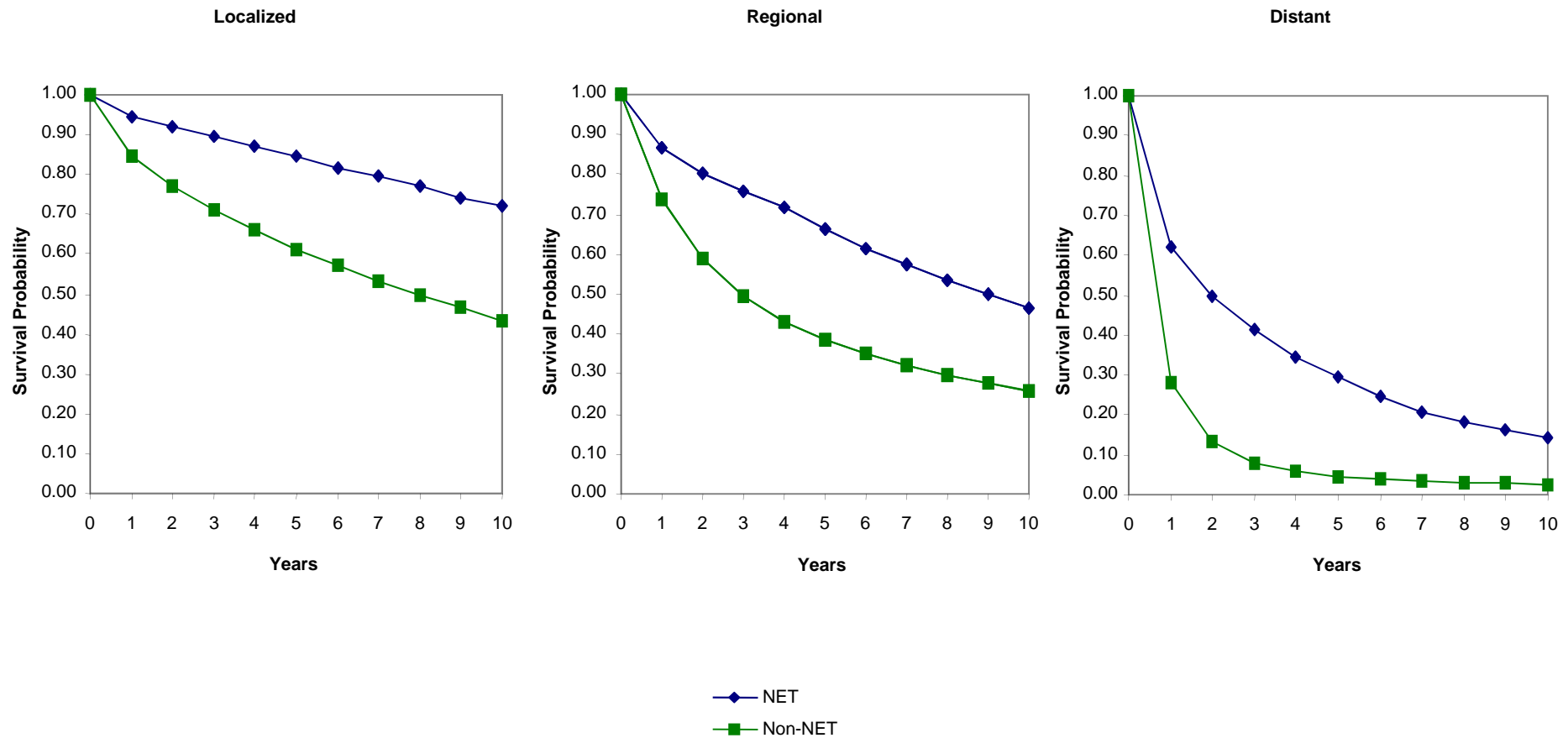
# 2004 Prevalence estimate

## 29-year limited duration prevalence analyses

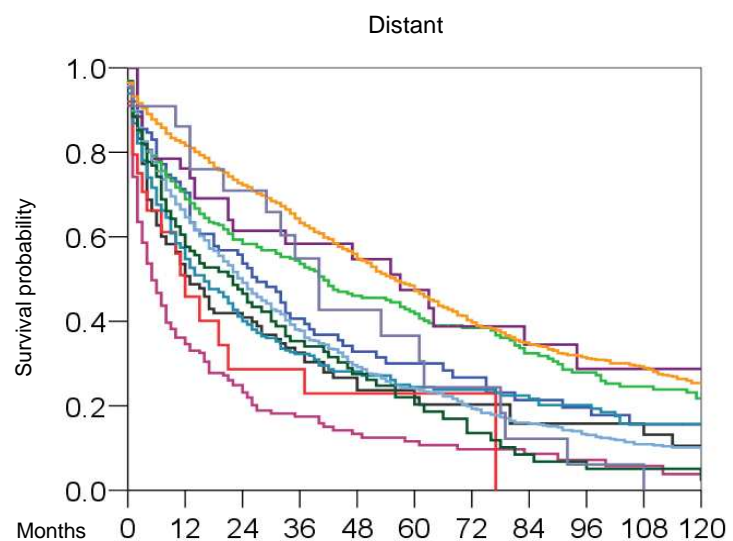
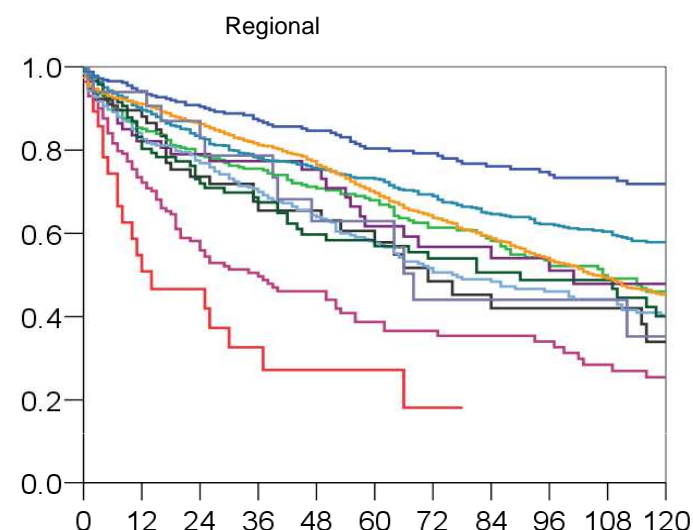
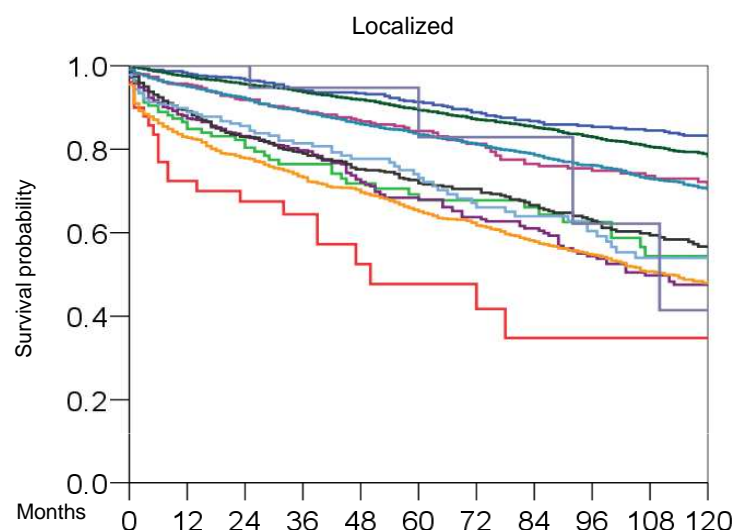


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# Neuroendocrine versus non-neuroendocrine histologies



# Significant differences among neuroendocrine tumors of various sites



Median survival in months

Color	Site	Localized	Regional	Distant
Blue	Appendix			27
Green	Cecum	135	107	41
Magenta	Colon	261	36	5
Purple	Duodenum	107	101	57
Grey	Gastric	154	71	13
Red	Liver	50	14	12
Light Blue	Lung	227	154	16
Dark Blue	Pancreas	136	77	24
Dark Green	Rectum	290	90	22
Orange	Sm Bowel	111	105	56
Light Purple	Thymus	110	68	40

# Neuroendocrine Tumors: Current Situation (1)

- Diagnosed incidence is on the rise.
- Vastly different outcome compare to more common neoplasm of the same anatomic site.
- Vastly different treatment offered.
  - Adenocarcinoma: Cytotoxic chemotherapy +/- newer targeted agents
  - Neuroendocrine: Hormonal therapy, interferon, newer targeted agents



# Neuroendocrine Tumors: Current Situation (2)

- No ICD-9-CM diagnosis codes except:
  - 157.4 Malignant neoplasm, Islets of Langerhans (pancreatic subset of neuroendocrine tumors).
  - 259.2 Carcinoid syndrome (only small subset of neuroendocrine patients has carcinoid syndrome).
- This leads to...
  - Lack of precision in coding.
  - Misleading statistics.
  - No way to accurately bill for services.

